

## COMFORT NOISE GENERATOR

### ABSTRACT

Comfort noise is derived from a white noise signal by filtering the white noise signal in a QMF bank to produce comfort noise signal that is selectively coupled to at least one  
5 channel in a telephone. Preferably, a plurality of QMF banks are used and the magnitude of the white noise into each filter is controlled in accordance with the magnitude of the signal in a corresponding analysis sub-band in a channel. In accordance with another aspect of the invention, the signals from higher frequency analysis sub-bands are combined and control a single input to a QMF bank, thereby  
10 increasing the low frequency resolution of the comfort noise. In accordance with another aspect of the invention, the QMF banks are cascaded upwardly (the output of one bank is coupled to the low pass input of the next bank), which also enhances the low frequency resolution of the comfort noise.